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## **Rethinking the Group: Group Processes in the Digital Age**

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## **Rethinking the Group: Group Processes in the Digital Age**

This special issue of *Group Processes and Intergroup Relations* (GPIR) on *Group Processes in the Digital Age* began life in the middle of 2019, when the world was a rather different place. As we write this editorial in the middle of 2020, the world has become all too familiar with the transformations brought about by the Covid-19 pandemic and is experiencing the resurgence of the Black Lives Matter movement after the murder of George Floyd. All the papers in this special issue were written before those seismic events forced their way into our consciousness. And yet, the papers are all remarkably prescient. Some of them anticipate the complexities of managing potentially difficult interactions at a time when social distancing has meant that interactions are overwhelmingly online (Roos, Postmes, & Koudenburg, xxxx). Others explore the ways in which people can mobilise or respond to racism and injustice in online contexts. Authors address key questions like how best to challenge racist content online (Myers, Leon, & Williams, xxxx) and what kinds of actions are appropriate as responses to injustice (Heering, Travaglino, Abrams, & Goldsack, xxxx) . Several papers also prefigure debates around so called ‘cancel culture’ or the pulling down of statues by exploring topics like the changing of ‘Australia day’ (Bliuc, Smith, & Moynihan, xxxx), or the support for hacking as a kind of ‘social banditry’ (Heering et al., xxxx) . We also include a look back to protests at the previous killing of a young Black man (Michael Brown in Ferguson) and see how they were shaped by online news media outlets to address different audiences (Riddle, Turetsky, Bottesini, & Leach, xxxx).

At the same time, there are also papers which reflect some of the enduring themes that originally motivated the special issue. We had already recognised that new forms of digitally mediated interactions were creating new forms of data - and that could change the way we study group processes and intergroup relations. The special issue thus includes

demonstrations of the way naturally occurring data from online forums and platforms can be explored using new analytic techniques. For example, we showcase techniques from computational social science (leveraging natural language processing) to explore social identity processes in naturally occurring data. Cork, Everson, Levine, & Koschate (xxxx) show not only how social identities (e.g., libertarians and entrepreneurs) can be detected in naturally occurring language on online forums (e.g., Reddit), but also that it is possible to detect social identity shifts in the same individual. In a similar fashion, Bliuc et al. (xxxx) explore how naturally occurring interactions on YouTube videos can be categorised and analysed to provide multiple difference indices of polarisation and elucidate the pathways to polarisation. Riddle et al. (xxxx) show how online news can be analysed on a large scale to help understand how and why news outlets frame their reporting of events tailored to their target audiences, which contributes to information fragmentation along group lines, and its societal effects.

Taken together, this special issue not only provides examples of the state-of-the-art of research into group processes in the digital world, but also sets the scene for a future research agenda. Social activities increasingly happen in, or are mediated by, a virtual world. These changes can have positive effects (through increased connection; the potential for social inclusion, and the opportunity to foster social change). At the same time, new technologies can promote harm (through the spread of misinformation and disinformation, and the facility to create division, uncertainty and fear). Understanding these new landscapes for studying group processes and intergroup relations requires more than just a rolling out of the traditional topics and methods of our discipline. It also pushes us to engage with the new digital environments and the new kinds of data they produce. Our aim in this special issue is to provide researchers with theoretical inspiration and practical tools for how to engage in this conversation between social psychological concepts and the increasingly digital world.

In their Editorial celebrating 20 years of GPIR, Abrams and Hogg (2017) highlight the role of GPIR in renewing theory, methods, and evidence in our understanding of groups and their interaction with society and the critical role the long history of innovative special issues have in the journal in achieving this goal. The study of groups is difficult; samples are often difficult to access and when they are available experimental control can be challenging. This can mean that the study of group-level phenomena often utilises individuals or simulated environments to reduce “noise” (such as social interaction). But that “noise” is often the very phenomenon we need to capture to understand the processes that lead to group outcomes. Digital data provide a new window of opportunity to capture and study those processes, often in novel groups that formed in, and/or were shaped by the constraints and affordances of, virtual spaces.

The quantity and visibility of papers that focus on the psychology of groups have varied over time, and research into groups has had bulges of activity. In their review of papers published about groups in the mainstream social psychology journals, Randsley de Moura, Leader, Pelletier and Abrams (2008) showed a slowing in the publication rate of papers looking at groups in the preceding decade. Despite this, it has long been recognised that virtual groups and computer mediated groups are an important area of study but are also useful tools to help make research in this area easier. For example, in the 1990s there were inventive efforts low in technology – relying on lights, wires, pieces of board and often not computers to solve some of the interesting questions of the time such as production blocking (Diehl & Stroebe, 1991). Later questions around social influence online were pertinent, but methods still involved lab cubicles and considerable manual intervention (Postmes, Spears, Sakhel, & de Groot (2001)). Now with the digital revolution the importance of studying groups is extremely important and our access to existing groups, data sets and new methodologies and analysis methods in a virtual sphere is increasing exponentially. As a

discipline, we must apply our rigour in theory and methods to these new contexts in which we can study group-level phenomena. We are at a time when the opportunities for group research and acceptance of its importance are reaching another peak.

The papers in this special issue provide researchers with tools to explore this rapidly changing and diverse area of study, based on solid theory and empirical rigour. It poses new and challenging technical questions and opportunities, and provides a roadmap for the establishment of methodological, ethical, and theoretical tools so that social psychologists can have the confidence and expertise to include the burgeoning virtual world into their academic research and practice. The papers in this issue are all well-grounded in social psychological theory and use novel methods or data to provide empirical support for insights into groups that we may think that we know but are, due to limitations in traditional methods and data, until now were assumptions derived from robust theories.

Our aim is to highlight the growing attention on virtual groups and the way that they function. Technology companies large and small are innovating in the way that individuals communicate, in the use of data for research and the ways of work, how people make decisions and interact with others when separated by both space and time. These innovations are occurring at an increasing pace and provide important opportunities for us as researchers of group processes and intergroup relations to innovate, methodologically and conceptually. Using digital data and virtual contexts, we can answer questions that we have wanted to answer for a long time due to the new data we can collect. For example, by collecting large volumes of social media data we can provide evidence for well-established theories in virtual domains. We can extend existing theories and we can explain the processes and consequences of entirely new forms of cyber-dependent and cyber-enabled behaviour, such as phishing and hacking, and forms of social interaction that utilise the affordances of digital technology. In this special issue, we provide high quality examples of research into virtual

groups and provide novel methodologies that can be used to extend social psychological work into the virtual realm.

The focus on new forms of behaviour and interaction is pertinent because, during the Covid-19 pandemic, many countries went into some form of lockdown, and in many parts of the world people's working and social lives were moved within a few days to a virtual space. The OECD (OECD, 2020) reported as much as a 60% increase in internet traffic, and popular video conferencing tools reported increases in use of many multiples. The importance of understanding the way groups behave online - both small (e.g., virtual teams in the workplace), and large (e.g., online mass events) is now much more widely acknowledged. Even if the transformation from the physical to the virtual world is not structural or permanent, it will bolster the high speed of change that was already happening in this sphere. What is clear is that to study the social realm, whether in-person or virtually, requires robust theory and methods. We see this issue as a tool to help facilitate the research and understanding of groups and group processes in a virtual space and as a platform for encouraging more empirical work and debate in this domain.

### **Overview of the Special Issue**

When we conceptualised the special issue, we asked for broadly defined contributions that sought to apply well-established understandings of groups to novel phenomena in a digital world. We also encouraged papers that explored new forms of digital data to test the limits of existing theorising about groups and intergroup relations. We wanted to collate an issue that could ask fundamental questions about some of the emergent properties of thinking about the digital and the physical. For example, how do the digital and physical realms interact? Does being with others virtually or physically impact on group processes and intergroup relations in different ways? What role do anonymity and visibility in digital and physical worlds play in understanding group processes and intergroup relations? These basic

questions have a resonance with the current issues faced by society.

We could not have predicted the timeliness of the contributions in this special issue to some of the most fundamental issues of the day. For example, we have a paper examining issues of differentially framing online news around racism and collective protest following the police killing of Michael Brown in Ferguson. We have a paper examining the content of social media posts and the influence they have on acceptance or not of racism online. We have a paper examining issues of polarisation and the celebration of colonial history, quite similar in nature to the current debates about controversial historical figures immortalised in statues. These papers fit closely with key societal themes in the US and Europe in the summer of 2020, and they reflect the broader societal changes that the digital revolution is sparking or accelerating - and the continued critically important contribution the study of groups can make to our understanding of social issues whether physical or virtual.

We had a wide range of excellent quality submissions from labs across the world, many of which used the virtual sphere to blend qualitative and quantitative methods. As the content and focus of the accepted submissions to the issue became clear, we organised them into three distinct themes. Below, we describe each theme in turn.

### **Theme 1. New methods to examine established theories using digital data and computational techniques**

Our first theme draws together papers that have leveraged new data opportunities and new computational social science techniques afforded by the digital age. These papers explore core social psychological topics (like social influence and group polarization) but do so in a way that transcends traditional psychological methods. For example, the paper by Cork and colleagues takes a concept that is well studied in social psychology (the importance of group prototypicality for social influence) and breathes new life into it through an engagement with digital data and new analytic techniques. Existing social psychological



work on this topic has all been offline, and the experimental work tends to employ between participants designs. This has meant that when the effects of prototypes on influence are studied, prototype shifts tend to be the result of some experimental manipulation and influence effects tend to be examined between groups rather than within the same individual. Cork et al. (xxxx) are able to leverage the fact that online discussion boards like Reddit contain multiple forums for different topics and that the same individual (or username) can contribute in these different forums. Thus, it is possible to acquire large volumes of naturally occurring text from different social contexts – pertaining to different social identities – to which the same individual can contribute at different times.

By using a machine learning classifier which used 12 prototype derived linguistic style features, they are able to train the classifier to distinguish between posts written on Reddit in a “libertarian” or an “entrepreneurial” forum. Moreover, because they can also use data from the same individual when making classifications, they are able to control for the potential influence of other demographic effects. They are even able to show that a classifier which is trained on data in Reddit can also work effectively on other online platforms (like Silk Road, which also has forums for libertarians and entrepreneurs). This suggests that identity detection capability is not platform specific – and could be generalised to study identities more widely.

By training a theoretically informed, prototype-based, machine learning classifier, Cork et al. (xxxx) are able to leverage naturally occurring language data to study the importance of prototypes for social influence. Not only does this new technique raise the possibility of being able to develop and deploy ways to detect social identity salience in an unobtrusive way, it also allows us to track identity salience shifts in the same individual as they move from context to context. This has the potential to make a major contribution to social psychologists interested in studying the impact of social identity without having to

make it salient by asking people to self-report.

Bliuc et al. (xxxx) identified the existing of naturally occurring social identities in digital data using a related technique. They used natural language processing to demonstrate processes of online polarisation in the context of debates around a YouTube video about the date of the Australian national holiday (Australia Day). The current date - January 26 - marks the arrival of the first British fleet in Australia in 1788. The debates around changing this date are entangled with different narratives around the meaning of Australian national identity – either reflecting British imperial rule and its associated values, or reflecting cultural diversity and the heritage of Indigenous Australians. To explore processes of polarisation around this issue, Bliuc et al. (xxxx) analysed the textual content of these debates to create novel indices of polarised talk from comments on a YouTube video. By doing so, they were able to test a dual-pathway model of polarisation in naturally occurring social interaction data about a societally-relevant issue. By employing this new, theory-driven method of deriving constructs by quantifying textual data, they created an opportunity to test existing theories that describe intra- and inter-group mechanisms of polarisation. They demonstrated that intergroup interactions and intragroup interactions have effects on different indicators of polarisation. In this way, by employing novel analytic techniques to test existing theories, they were able to make novel conceptual contributions to our understanding of the processes, effects, and outcomes of polarisation.

## **Theme 2. Responding to racism and injustice online**

The second theme that permeates this special issue is one of how people mobilise and respond to racism and injustice in virtual contexts. First, the paper by Myers and colleagues (xxxx) makes a significant contribution to the debate about how to tackle racism online. Using an experimental design, and a mock-up of an online messaging platform, they study the impact of aggressive as opposed to passive challenges to racist statements. They focus on

the judgements made by the targets of racism (self-identified East Asian and South East Asian students at the University of Hawaii). They demonstrate conclusively that that aggressive confrontations of racist posts lead to judgment of the original post as more offensive than when compared to more passive confrontations. They go on to show that participants are more likely to report the content (to the platform) as being offensive when they are exposed to aggressive confrontation by others. Finally, they show that people who confront aggressively are evaluated more positively than passive confronters. There are several intriguing aspects to this work. The first is to give support to the idea that it is important to challenge racist content online in a forthright way. It contributes in a positive way to those who experience racism feeling able to report it. It also increases the likelihood that those who challenge racism will be viewed positively by the people who experience it. What Myers et al were less able to show was that the in-group or out-group status of the confronter had an impact on the way the interventions were experienced by the target group. There was no clear pattern to the effect that passive or aggressive challenge to racism by a White (outgroup) confronter had in comparison to the challenge made by an Asian (ingroup) confronter. The paper offers some interesting suggestions about why this might be – and what further work needs to be done.

Second, the paper by Heering and colleagues (xxxx) explores new forms of collective action and social protest using older ideas from historical work on ‘social banditry’. Heering et al. (xxxx) examined the conditions under which people would support the action of ‘hackers’ – small groups of actors able to deploy digital skills and expertise to attack a source of authority or power. By constructing hacking as behaviour analogous to that described by Hobsbawm (1959) in his account of ‘social banditry’ in pre-industrial societies, the paper sheds light on when and why communities might support the illegal (or semi-legal) behaviour of hacking groups that attack or disrupt institutions of which they are a part. In doing so, they

complement and extend existing social psychological knowledge about the form and nature of collective action. They show that when a system is perceived as unresponsive to evidence of unfairness, then people are more likely to endorse or support the actions of hacking groups who attack them. When powerful institutions turn a deaf ear to the legitimate protests of their people, one form of political response is to endorse the illegal attacks of others upon the institution. This kind of vicarious endorsement of the behaviour of others extends the range of what might be considered collective action in support of a grievance.

By engaging with new forms of action which are possible in the digital age – and reflecting on parallels with behaviour in a pre-industrial era – Heering et al. (xxxx) make a valuable contribution to the vital work of understanding collective action in the digital age. There are ongoing debates about what might constitute political action in the first place, the kinds of political action that are efficacious, and the way to understand the relationship between online and offline behaviours. By shining a light on the way hacking is understood and endorsed by the wider public, the paper makes a valuable contribution to the study of modern social protest movements.

To examine structural factors that influence how and why people mobilise and respond to racism and injustice online, Riddle et al. (xxxx) analysed the differential framing of online news stories about the murder of Michael Brown, an unarmed Black teenager, by a white police officer in Ferguson, Missouri. News outlets targeting black audiences framed the protest as a legitimate response to racial injustice, whereas news outlets targeting white audiences framed the protest in relation to the protesters' relationship with the police. This latter frame functioned to undermine the perceived legitimacy of the protest, thus potentially increasing opposition to it. The former frame functioned to bolster support for the protests, but because this framing was only present in news targeted at black audiences, it could function to polarise the debate, exacerbating existing divisions. Bliuc et al.'s (xxxx)

examination of polarisation in debates on a YouTube video is a related example of how virtual contexts provide a medium and structure that can mobilise people in support of, or in opposition to, online content.

### **Theme 3. Digital Structures, Communication and Influence**

In this final section, we examine some of the ways the nature of digital communication and the structure of online environments can impact on social relationships and social influence. As we move away from unmediated face-to-face encounters (a movement which has been pronounced under Covid-19 social distancing conditions), an analysis of the structural impact of the digital communications architecture becomes ever more important. With that in mind, we consider how digital communications structure can itself shape psychological processes. For example, the paper by Roos and colleagues carefully explores the way social regulation is managed in face-to-face as opposed to online interactions. They argue that, in situations where there is potential for controversy and disagreement, it is important to be able to maintain a kind of strategic ambiguity in the way communication unfolds. If strategic ambiguity is undermined by the way communication can be carried out, then social relationships can begin to breakdown. They show that face-to face communication naturally facilitates this ambiguity, while online messaging reduces both ambiguity and responsiveness. Online message-only environments lead to less conversational flow, less shared cognition and less solidarity. They show that, as we move ever more into socially mediated interactions, it is not the eradication of ambiguity that should be our aim. Given that social media environments seem to be engines for social and political polarisation, we should be seeking to harness the power of ambiguity to allow social relationships to be maintained in the context of controversy and disagreement.

### **Conclusion**

The themes of racism and injustice, social influence and communication online and methodology and computational techniques for understanding online interactions found in this issue are a remarkably close fit with important societal themes in the US and Europe in the summer of 2020, they reflect the broader changes we are seeing in society as a result of the digital revolution. They also show the some of the best examples of how the study of groups can utilise a mix of quantitative and qualitative methods and provide rigorous, theoretically grounded insights into our understanding of physical and virtual social issues.

New forms of data are transforming the way that we can study groups and we must be careful not to be left behind by researchers working in other disciplines or the private sector. Our expertise and interest in this important sphere provide us with opportunities for collaboration that we must make the most of. The papers in this special issue provide us with clear theoretical, methodological and empirical exemplars of how as researchers we can confidently use the plethora of opportunities provided by the digital revolution to further our work as psychologists on understanding the rich and complex world of groups. We hope that, in the spirit of Abrams and Hoggs vision for *Group Processes and Intergroup Relations* this special issue will spark a burgeoning of activity in studying and writing about the online arena.

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